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APPLICATION.NO. FILING DA	TE FIRST NAMED INVENTOR			TTORNEY DOCKET NO.	
)9/020,733 02/09/9	78 TRAUB		TJ A2	9823FWC-B	
PETER A. BUSINGER	LM51/0621	· [EXAMINER INECKE DÍAZ,S	
BAKER & BOTTS 30 ROCKEFELLER PLA)	ZΑ	Γ	ART UNIT	PAPER NUMBER	
NEW YORK NY 10112-03			2765	<u> </u>	
•			DATE MAILED: ()	16/21/99	

Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PARTMENT OF COMMERCE Patent and Trade Park Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LM51/0621

PETER A. BUSINGER BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK NY 10112-0228

APPLI	CATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAREED
	09/020,733	02/09/98	018	MEINECKE DIAZ, S 2	27.55 06/21/99
First Named Applicant	TRAUB,		35 L	SC 154(b) term ext. = C	Days.

TITLE OF INVENTION PORTFOLIO STRUCTURING USING LOW-DISCREPANCY DETERMINISTIC SEQUENCES

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ŕ	ATTMC !	DOCKET NO. CLAS	S-SUBCLASS BATCH NO.	APPL	N TYPE SMAL	LENTITY	FEE DUE	DATE DUE
1	ALITS	DOCKET NO. OLA			18mg			
١		A29823FWC-B	705-036.000	1175	UTILITY	YES	\$605.00	09/21/99
1	.£	MENDEDI WO D						

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u>

HOW TO RESPOND TO THIS NOTICE:

- Review the SMALL ENTITY status shown above.

 If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
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- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.
- HI Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE Even if the ISSUE FEE has already been paid by charge to deposit account; Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give application number and batch number.

 Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY



Notice of Allowability



Application No.

09/020,733

Applicant(s)

Traub et al.

Examiner

Susanna Meinecke-Díaz

Group Art Unit 2765



All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.
★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is responsive to the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication is the application filed February 9, 1998 ★ This communication filed February 9, 1998 ★ This communication filed February 9, 1998 ★ T
☐ The allowed claim(s) is/are 1-18
☐ The drawings filed on are acceptable.
☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
received.
received in Application No. (Series Code/Serial Number)
received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
*Certified copies not received:
☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).
■ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
Applicant MUST submit NEW FORMAL DRAWINGS
because the originally filed drawings were declared by applicant to be informal.
including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No
including changes required by the proposed drawing correction filed on, which has been approved by the examiner.
☒ including changes required by the attached Examiner's Amendment/Comment.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal lettter addressed to the Official Draftsperson.
☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.
Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.
Attachment(s)
⊠ Notice of References Cited, PTO-892
Information Disclosure Statement(s), PTO-1449, Paper No(s).
★ Notice of Draftsperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152
⊠ Examiner's Amendment/Comment
Examiner's Comment Regarding Requirement for Deposit of Biological Material
□ Examiner's Statement of Reasons for Allowance □

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DETAILED ACTION

Allowable Subject Matter

1. Claims 1-18 are allowed.

2. The following is an examiner's statement of reasons for allowance: None of the prior art showed or suggested, even in combination, the limitations of calculating a number of potential-loss function values, determining a cumulative distribution function, determining value at risk, and structuring a portfolio depending on a comparison of value at risk with a specified target value.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.



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Authorization for this examiner's amendment was given in a telephone interview with Peter A. Businger on June 17, 1999.

4. Peter A. Businger has agreed to the following changes:

Fig. 1: All boxes have been re-labeled as shown in the attached copy of Fig. 1.

Fig. 2: Figure 2 has been labeled as such (shown in the attached copy of Fig. 2).

Claims 13-18 have been amended to read as follows:

- 13. A computer program product embodied on a computer readable medium, having stored thereon:
- (i) instructions for calculating potential-loss function values at points in a domain of stochastic market factors, the points being obtained from a low-discrepancy deterministic sequence;
- (ii) instructions for determining a cumulative distribution function of the function values;
- (iii) instructions for determining value at risk as one of the function values corresponding to a specified level of confidence; and
- (iv) instructions for structuring the portfolio depending on a comparison of the value at risk with a specified target value.



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14. The computer program product according to claim 13, wherein the instructions for determining the cumulative distribution function include instructions for sorting the function values.

15. The computer program product according to claim 13, wherein the number of function values is predetermined.

16. The computer program product according to claim 13, further including instructions for determining the number of function values.

17. The computer program product according to claim 13, wherein the instructions for calculating include instructions for allocating function evaluations among a plurality of subprocessors.

18. The computer program product according to claim 13, wherein the low-discrepancy deterministic sequence is selected from the group consisting of Sobol point sequence, Halton point sequence, Hammersley point sequence, hyberbolic-cross point sequence and generalized Faure sequence.

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna Meinecke-Díaz whose telephone number is (703) 305-1337. The examiner can normally be reached Monday-Thursday from 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allen MacDonald, can be reached at (703) 305-9708.

The fax number for Formal or Official faxes to Technology Center 2700 is (703) 308-9051 or 9052. Draft or Informal faxes for this Art Unit can be submitted to (703) 305-0040.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

SMD June 17, 1999

> ALLEN R. MACDONALD SUPERVISORY PATENT EXAMINE

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